



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q57599

Sang-seo LEE

Appln. No.: 09/503,506

Group Art Unit: 2142

Confirmation No.: 6707

Examiner: Douglas Blair

Filed: February 14, 2000

For: DATA TRANSMISSION PROTOCOL USING SHORT MESSAGE SERVICE

**SUBMISSION OF APPEAL BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. A check for the statutory fee of \$500.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Respectfully submitted,

Cameron W. Beddard  
Registration No. 46,545

Date: February 7, 2005



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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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***U. S. Application No. 09/503,506***

**I. REAL PARTY IN INTEREST**

The real party in interest is SAMSUNG ELECTRONICS CO., LTD., by virtue of an assignment executed by Sang-seo LEE, (Appellant hereafter) on March 3, 2000 and recorded by the Assignment Branch of the U. S. Patent and Trademark Office on September 1, 2000 (at Reel 011098, Frame 0330).

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**II. RELATED APPEALS AND INTERFERENCES**

To the knowledge and belief of Appellant, the Assignee, and the undersigned, there are no other appeals or interferences before the Board of Appeals and Interferences that will directly affect or be affected by the Board's decision in the instant Appeal.

**III. STATUS OF CLAIMS**

Claims 1-29 are pending in the application.

Claims 9-15 and 24-29 have been withdrawn from consideration.

Claims 1-8 and 16-23 are rejected.

The rejections of claims 1-8 and 16-23 are being appealed.

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**IV. STATUS OF AMENDMENTS**

All Amendments are believed to have been previously entered and made of record.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Independent claim 1 of the present application recites a data sending protocol using a short message service, the data transmission protocol comprising the steps of: (a) inserting a data connection service identifier into a user data field (p. 7, line 22 - p. 8, line 3 and lines 6-8); (b) segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, into the user data field (p. 8, lines 3-8); (c) generating a short message field using the user data field (p. 8, lines 8-9); and (d) transmitting the short message field (p. 8, lines 9-10).

Independent claim 16 of the present application recites a data sending apparatus using a short message service (FIG. 4; p. 7, lines 18-21), the apparatus comprising: data connection service identifier inserting means 402 for inserting a data connection service identifier into a user data field (p. 7, line 22 - p. 8, line 1); short message processing means 406 for segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, into the user data field (p. 8, lines 3-8); short message field generating means 440 for generating a short message field using the user data field (p. 8, lines 8-9); and transmitting means 460 for transmitting the short message field (p. 8, lines 9-10).



**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-7 and 16-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Isomursu et al. (US 6,400,958) in view of Liao (US 6,185,208).

Claims 8 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Isomursu et al. and Liao in view of Ayabe et al. (US 6,141,550).

## **VII. ARGUMENT**

Appellant respectfully submits that the claims would not have been obvious over the applied references.

**Argument 1: Isomursu et al. and Liao do not teach or suggest segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number into the user data field.**

Claim 1 recites segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number into the user data field. The Examiner concedes that Isomursu et al. does not disclose a field indicating the number of short messages (p. 3, lines 5-6 of the Office Action dated February 6, 2004), but asserts that Liao discloses this feature of claim 1.

In the Response filed May 6, 2004, Appellant argued that Liao does not teach inserting a field indicating the number of segmented short messages into the user data field. In the “Response to Arguments” of the Office Action dated August 4, 2004, the Examiner responded to this argument by asserting that col. 6, lines 57-61 of Liao indicates the last short message and therefore the total number of messages.<sup>1</sup> Appellant respectfully disagrees. The cited excerpt discloses that when the last fragment is received, a flag in the last segment is turned on to indicate the end of the message. However, the turning on of a flag does not correspond to inserting a field. Furthermore, indicating the end of a message does not correspond to indicating

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<sup>1</sup> Page 5, lines 15-17.

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the number of segmented short messages into the user data field. Therefore, claim 1 is allowable over the prior art.

Claims 2-7 are allowable over the prior art, at least because of their dependence from claim 1.

**Argument 2: Isomursu et al. and Liao do not teach or suggest inserting a reference number field, which indicates a number for referring to a type of data connection service employed, into a position next to the data connection service identifier in the user data field.**

In the Response filed May 6, 2004, Appellant argued that Isomursu et al. fails to teach or suggest the feature of claim 5 of inserting a reference number field, which indicates a number for referring to a type of data connection service employed, into a position next to the data connection service identifier in the user data field. Instead, Isomursu et al. only discloses inserting an application identifier into the INFO field. Moreover, the INFO field does not correspond to the user data field recited in the claim. Rather, the INFO field is an information field of the short message transmission frame containing the actual short message in characters. See col. 6, lines 34-38 of Isomursu et al.

The Examiner does not rebut this argument. Rather, the Examiner responds in the “Response to Arguments” of the Office Action dated August 4, 2004 by asserting that the reference number field is a non-functional limitation, because the Appellant’s specification does not provide details as to how or even if the reference number field is processed at the receiving end. Further, the Examiner asserts that Isomursu et al. teaches a data connection service

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identifier as cited above, i.e., the application identifier.<sup>2</sup> In response to the Examiner's assertions, Appellant provides the following comments.

First, the present specification describes the inserting of the reference number field on p. 7, line 22 – p. 8, line 10. The reference number field is illustrated in FIG. 6 of the present application. All of the features of claim 5 are entitled to patentable weight, as recited in the claim. The recitation in claim 5 of inserting a reference number field, which indicates a number for referring to a type of data connection service employed, into a position next to the data connection service identifier in the user data field is one of the steps of the claimed data sending protocol. The claim does not need to recite how the reference number field is processed at the receiving end. Such processing is not part of the claimed invention.

Second, claim 5 does not simply recite a data connection service identifier. Thus, whether Isomursu et al. discloses a data connection service identifier does not resolve the issue of whether Isomursu et al. discloses the features of claim 5. In other words, providing a data connection service identifier in Isomursu et al. does not correspond to inserting a reference number field, as claimed in claim 5. Thus, claim 5 is allowable for the reasons described in the May 6 Response.

Claim 20 is allowable over the prior art for reasons analogous to those for claim 5.

With regard to the rejection of claim 8 over Isomursu et al. and Liao in view of Ayabe et al., Appellant submits that claim 8 is allowable over the prior art, at least because of its

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<sup>2</sup> Page 5, lines 18-20.

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dependence from claim 1, and because Ayabe et al. does not make up for the deficiencies of Isomursu et al. and Liao.

Furthermore, claims 16-23 are allowable over the prior art for reasons analogous to those presented above for claims 1-8.

Appellant respectfully requests the members of the Board to reverse the rejection of all appealed claims and to find each of the claims allowable as defining subject matter which is patentable over the applied references.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

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Respectfully submitted,



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**CLAIMS APPENDIX**

**CLAIMS 1-8 and 16-23 ON APPEAL:**

1. A data sending protocol using a short message service, the data transmission protocol comprising the steps of:

- (a) inserting a data connection service identifier into a user data field;
- (b) segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, into the user data field;
- (c) generating a short message field using the user data field; and
- (d) transmitting the short message field.

2. The data sending protocol of claim 1, wherein the step (a) uses a code, which is not used in an ASCII code table, for the data connection service identifier.

3. The data sending protocol of claim 1, wherein the step (a) uses a code, which is not used in a KS5601 standard, for the data connection service identifier.

4. The data sending protocol of claim 2 or 3, wherein the code is 98H or 99H.

5. The data sending protocol of claim 1, further comprising a step of (e) inserting a reference number field, which indicates a number for referring to the type of data connection service, into a position next to the data connection service identifier in the user data field.

6. The data sending protocol of claim 1, further comprising a step of (f) translating a delivery message and extracting an identifier requesting retransmission of data.

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7. The data sending protocol of claim 6, wherein the step (f) comprises a step of (f-1) extracting a field indicating the total number of short message and a field indicating a retransmission request short message number.

8. The data sending protocol of claim 7, wherein the step (f) further comprises the steps of:

(f-2) inserting, among the whole segmented short messages, a short message data field corresponding to the retransmission request short message number, into a user data field; and

(f-3) generating a short message field using the user data field and retransmitting the short message field.

16. A data sending apparatus using a short message service, the apparatus comprising:  
data connection service identifier inserting means for inserting a data connection service identifier into a user data field;

short message processing means for segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, into the user data field;

short message field generating means for generating a short message field using the user data field; and

transmitting means for transmitting the short message field.

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17. The data sending apparatus of claim 16, wherein the data connection service identifier inserting means uses a code, which is not used in an ASCII code table, for the data connection service identifier.

18. The data sending apparatus of claim 16, wherein the data connection service identifier inserting means uses a code, which is not used in a KS5601 standard, for the data connection service identifier.

19. The data sending apparatus of claim 17 or 18, wherein the code is 98H or 99H.

20. The data sending apparatus of claim 16, further comprising reference number field inserting means for inserting a reference number field, which indicates a number for referring to the type of data connection service, into a position next to the data connection service identifier in the user data field.

21. The data sending apparatus of claim 16, further comprising short message field translating means for translating a delivery message and extracting an identifier requesting retransmission of data.

22. The data sending apparatus of claim 21, wherein the short message field translating means comprises means for extracting a field indicating the total number of short message and a field indicating a retransmission request short message number.

23. The data sending apparatus of claim 21, wherein the short message processing means receives a field indicating the total of segmented short messages and a field indicating a retransmission request short message number from the short message field translating means, and inserting a data field corresponding to the retransmission request short message number into



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a user data field; and the short message field generating means generates a retransmission short message field using the user data field.

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**EVIDENCE APPENDIX**

There has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

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**RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.